

## C l a i m s

1. Method for producing at least one container of a plastic material filled with a medium, in which
  - the plastic material is extruded in a tubular shape and is placed against the inside walls of a molding tool for molding the respective container by means of differential pressure,
  - the respective container is filled with the medium by way of its fill opening with a filling means and
  - the fill opening of the container is closed by sealing,characterized in that for extrusion of different plastic materials a coextrusion process is used in which the respective container is built up at least partially from several layers of plastic material and that at least one of the layers is used as a barrier layer
2. The process as claimed in claim 1, wherein the individual layers of the container product are formed from different plastic materials, especially from polyolefin, polyamide, polypropylene, low density polyethylene, copolymers, and ethylene vinyl alcohol copolymers.
3. The process as claimed in claim 2, wherein ethylene vinyl alcohol copolymers and other copolymers are used on the container as barrier layers for oxygen, aromas, water vapor, solvents, and toxic substances.
4. The process as claimed in one of claims 1 to 3, wherein at least two layers, especially more than three, preferably five and more barrier layers are used for a container.
5. The process as claimed in one of claims 1 to 4, wherein adhesives such as ionomers are used between the layers of plastic materials.

6. Device for carrying out the process as claimed in one of claims 1 to 5, wherein the device component (10) has at least one extrusion head (14) and for each provided layer an extruder (12) and wherein the other device component (16) has at least one mold-fill-seal means.
7. The device as claimed in claim 6, wherein the extrusion head (14) enables adapter or nozzle coextrusion.